

REMARKS

The claims have been amended to more clearly define the invention as disclosed in the written description. In particular, claims 14 and 16-21 have been cancelled, claims 3 and 15 having been previously cancelled. In addition, the claims have been amended for clarity.

The Examiner has rejected claims 1, 2, 4-6, 8-12, 14, 16-19 and 21 under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication No. 2005/-276567 to Okuyama et al. The Examiner has further rejected claims 7, 13 and 20 under 35 U.S.C. 103(a) as being unpatentable over Okuyama et al.

The Okuyama et al. publication discloses a recording equipment and recording method, in which depending on whether a selected program matches the preferences of the user, the program is recorded without varying the bit rate or the program is recorded upon conversion to a lower bit rate.

As noted in MPEP §2131, it is well-founded that "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Further, "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim, but this is not an *ipsissimis verbis* test, i.e., identity of

terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

Claim 1 includes the limitations:

"A method of detecting a boundary of a content item in a digital video stream, the method comprising the steps of:

 determining, in a processor, an average bit rate of an incoming digital video stream over a period of time;

 detecting locations of shot-cuts in the digital video stream;

 adjusting the period of time in the determining step based on the detected shot-cut locations; and

 detecting, in a detector, a change of the average bit rate, a location in the video stream of the change in the average bit rate being indicative of a boundary of the content item."

The Examiner has indicated that Okuyama et al. discloses "detecting (125) shot-cuts in the content item, and adjusting (126) the period of time in the determining step based on the detected shot-cuts (fig. 5-6, paragraph 0036-0038)."

Applicant submits that the Examiner is mistaken. In particular, Okuyama et al. states:

"[0036] FIG. 5 is a performance chart illustrating another example of rate conversion operation of the rate converter in accordance with the present invention. This figure illustrates a bit rate after conversion with a rate converter during one program. The bit rate C with the lowermost level represents a case when broadcasting of commercials was detected, for example, by changes in the voice mode. The bit rate B of the medium level represents a case when a usual program has been broadcasted. Further, the bit rate A of the high level represents a case when broadcasting

of highlights was detected by program information. With the present embodiment, highlights of major interest can be recorded as a high-quality video. For commercials, the bit rate can be decreased and the quantity of recorded data can be reduced. Thus, if recording in the same program is conducted by taking the contents into account, then the entire quantity of data can be reduced by recording only the contents with a high priority as high-quality video and recording other contents at a low bit rate.

[0037] Further, by employing the difference in the recording bit rates, it is also possible to provide a function of conducting the reproducing operation with skipping of the next commercial. during reproduction. When using the system, the user may directly supply an instruction of changing the bit rate of recording to the operation unit.

[0038] FIG. 6 is a performance chart illustrating an example of rate conversion operation of the rate converter in accordance with the present invention. In HDTV broadcasting, the original video data is sometimes SDTV, but broadcasted as HDTV. However, in this case, the bit rate of inputting into the rate converter decreases by comparison with that in the case when the original video data is in HDTV. FIG. 6 shows the bit rate of video data input in the rate converter. In a HDTV broadcast time zone 17a, the original video data is HDTV and the average level is a high bit rate A, whereas in a time zone 17b in which SDTV video is broadcasted as HDTV, because the amount of information is small, the average level is a low bit rate B and the difference therebetween can be recognized automatically. In the HDTV broadcast time zone 17a, output is conducted without changing the bit rate, and the average level is a high bit rate A. In the time zone 17b, converting to SDTV of the original video data automatically switches the average level to a bit rate with an average level C which is even lower than B."

It should be apparent from the above that while Okuyama et al. discloses the detection of commercials in the video program being recorded (paragraph [0036]), this is performed "by changes in the voice mode". However, there is no disclosure or suggestion of detecting shot-cuts. It should be understood that "shot-cuts" are a

term of art in the video field and describes a transition (sharp or gradual) between different video sequences in the video stream.

Further, Applicant submits that there is no disclosure or suggestion in Okuyama et al. that the detected shot-cut should be used to change the period of time over which the determining means determines the average bit rate of the incoming digital video stream. In fact, Okuyama et al. fails to disclose or suggest that the period of time over which the average bit rate of the incoming digital video stream should be varied at all.

Claim 7 includes the limitations "wherein the content item is in an encrypted digital video stream, and wherein the steps of the method are performed on the encrypted digital video stream."

The Examiner states "Okuyama discloses the method wherein the content item is MPEG compressed but fails to disclose the content item is in an encrypted digital video stream.

"It is noted that the use of encrypted digital video stream is old and well-known in the recording art. Therefore, official notice is taken. Moreover, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have a well-known encrypted digital video stream to receive secure digital broadcast video signal for user's security purpose."

Applicant submits that while it may be obvious for the video stream to be encrypted, there is no disclosure or suggestion that the steps of the method of claim 1 should be performed on the encrypted video stream, i.e., without (or prior to) decryption.

Reference is made to the specification as filed on page 7, lines 4-22.

Further, Applicants submit that Official Notice cannot supply that which is missing from Okuyama et al., i.e., "detecting locations of shot-cuts in the digital video stream" and "adjusting the period of time in the determining step based on the detected shot-cut locations".

In view of the above, Applicant believes that the subject invention, as claimed, is neither anticipated nor rendered obvious by the prior art, and as such, is patentable thereover.

Applicant believes that this application, containing claims 1, 2 and 4-13, is now in condition for allowance and such action is respectfully requested.

Respectfully submitted,

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